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ORIGINAL

Public Service Commission

June 29, 2007

Mr. Scott Boyd, Executive Director
Joint Administrative Procedures
Committee
Room 120 Holland Building
Tallahassee, FL 32399-1300

RE: Docket No. 070303-TP – Proposed amendment of Rule 25-4.036, F.A.C., Design and Construction of Plant, and Rule 25-24.515, F.A.C., Pay Telephone Service

Dear Mr. Boyd:

Enclosed are the following materials concerning the above referenced proposed rules:

1. A copy of the rules and the materials incorporated by reference into the rules.
2. A copy of the F.A.W. notices.
3. A statement of facts and circumstances justifying the proposed rules.
4. A federal standards statement.
5. A statement of estimated regulatory costs.
6. A copy of the 2007 edition of the National Electrical Safety Code.

Please return the copy of the National Electrical Safety Code when you have finished your review of the proposed rules. If there are any questions with respect to these rules, please do not hesitate to call me.

Sincerely,

Kira Scott

Kira Scott
Associate General Counsel

070303 Letter.ks.doc
Enclosures
cc: Office of Commission Clerk

25-4.036 Design and Construction of Plant.

(1) The plant and facilities of the utility shall be designed, constructed, installed, maintained and operated in accordance with provisions of the National Electrical Safety Code (IEEE C2-~~2002~~ 2007) and the National Electrical Code (NFPA 70-2005), which is incorporated herein by reference, pertaining to the construction of telecommunications facilities.

(2) Compliance with these codes and accepted good practice is necessary to insure as far as reasonably possible continuity of service, uniformity in the quality of service furnished and the safety of persons and property.

Specific Authority 350.127(2) FS.

Law Implemented 364.01(4), 364.03, 364.15 FS.

History–Revised 12-1-68, Amended 4-19-77, Formerly 25-4.36, Amended 2-5-86, 3-26-91, 5-3-94, 12-23-02, 12-29-05.

CODING: Words underlined are additions; words in ~~struck through~~ type are deletions from existing law.

25-24.515 Pay Telephone Service.

(1) For the purposes of this section, the term "direct free" shall mean without requiring the use of a coin, paper money, credit card, or any other form of payment, even if the payment will be returned.

(2) Pay telephone stations shall be lighted during the hours of darkness when light from other sources is not adequate to read instructions and use the instrument.

(3) Each pay telephone station shall return any deposited amount if the call is not completed, except messages to a Feature Group A access number.

(4) Each pay telephone station shall permit direct free access to the universal telephone number "911" where operable.

(5) Each pay telephone station shall permit direct free access to dialtone.

(6) Each pay telephone station shall permit direct free access to toll free numbers (e.g., 800, 877, and 888).

(7) Each pay telephone station shall complete calls to local and long distance directory assistance.

(8) Each pay telephone station shall complete calls to the responsible party for repairs or refunds by direct free access.

(9) Each pay telephone station shall be equipped with a legible sign, card, or plate of reasonable permanence which shall identify the following:

(a) The telephone number and location address of the pay telephone station, name and certificate number of the certificate holder, the party responsible for repairs and refunds, address of responsible party, free phone number of responsible party, clear dialing instructions (including notice of the lack of availability of local or toll services), and the local coin rate.

(b) For those pay telephone stations that will terminate conversation after a minimum elapsed time, notice shall be included on the sign card as well as an audible announcement 30

seconds prior to termination of the phone call.

(10) Each pay telephone station that provides access to any interexchange company shall provide coin free access, except for Feature Group A access, to all locally available interexchange companies. The pay telephone station shall provide such access through the forms of access purchased by locally available long distance carriers such as 10XXX+0, 10XXXX+0, 101XXXX+0, 950, toll free (e.g., 800, 877, and 888) access.

(11) No sales solicitation shall be allowed during the interval between the last digit dialed by the end user and connection with the interexchange carrier.

(12) All 0- calls shall be routed to a telecommunications company that is authorized by the Commission to handle 0- calls. All other calls, including operator service calls, may be routed to the pay telephone provider's carrier of choice, unless the end user dials the appropriate access code for their carrier of choice, i.e., 950, 10XXX, 10XXXX, 101XXXX, and toll free access (e.g., 800, 877, and 888).

(13)(a) Each pay telephone station shall allow incoming calls to be received at all times, with the exception of those located at hospitals, schools, and locations specifically exempted by the Commission. There shall be no charge for receiving incoming calls.

(b) A pay telephone provider may petition the Commission for an exemption from the incoming call requirement for a period that shall not exceed two years from the effective date of the Order granting the exemption. Requests for exemption from the requirement that each pay telephone station allow incoming calls shall be accompanied by a completed Form PSC/CMP-2 (02/99), entitled "Request to Block Incoming Calls," which is incorporated into this rule by reference and may be obtained from the Commission's Division of Competitive Markets and Enforcement. The form requires an attestation from the owner of the pay telephone, the owner of the pay telephone location, and the chief of the responsible law enforcement agency that the request is sought in order to deter criminal activity facilitated by

incoming calls being received at the specified pay telephone. A separate form shall be filed for each telephone number for which an exemption is sought. The provider of the pay telephone may request subsequent two-year exemptions by filing another Form PSC/CMP-2 (02/99). Where incoming calls are not received, central-office based intercept shall be provided at no charge to the end user and a written notice shall be prominently displayed on the instrument directly above or below the telephone number which states: "Incoming calls blocked at request of law enforcement."

(14) Each pay telephone station must be connected to an individual access line.

(15)(a) Each pay telephone service company shall permit outgoing calls to be placed from its pay telephone stations at all times.

(b) Each pay telephone service company shall make all reasonable efforts to minimize the extent and duration of interruptions of service. Service repair programs should have as their objective the restoration of service on the same day that the interruption is reported to the company. (Sundays and holidays excepted.)

(16)(a) Where there is a single pay telephone station, a directory shall be maintained at each station. Where there are two or more pay telephone stations located in a group, a directory for the entire local calling area shall be maintained at every other station. However, where telephone pay stations are fully enclosed, a directory shall be maintained at each pay telephone station. For purposes of this rule, the term "directory" shall mean both a current white page directory for the local calling area and a reasonably current yellow page directory that is appropriate for the calling area of the pay telephone station.

(b) Pay telephone stations that provide local directory assistance at no charge are exempt from the provisions in paragraph (16)(a). A notice must appear on the placard if local directory assistance at no charge is being provided.

(17) Normal maintenance and coin collection activity shall include a review of the

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cleanliness of each pay telephone station.

(18)(a) Except as provided in paragraph (18)(b) below, each pay telephone station shall conform to sections 4.1.3(17), 4.2.4, 4.2.5, 4.2.6, 4.5.1., 4.31.2, 4.31.3, and 4.31.5 of the ADA Accessibility Guidelines for Buildings and Facilities, Appendix A to 28 CFR Part 36, (July 1, 2003 Edition), which sections are incorporated by reference into this rule. This rule does not apply to public text telephone and closed circuit telephones.

(b) Pay telephones shall not be installed where the required "clear floor or ground space" provided for in ADA Accessibility Guidelines for Buildings and Facilities sections 4.2.4.1, 4.2.4.2, and 4.31.2 would be reduced by a vehicle parked in a designated parking space.

(19) Each pay telephone station shall permit end users to input unlimited digits for the duration of the call.

(20) Toll Fraud Liability.

(a) A company providing interexchange telecommunications services or local exchange telecommunications services shall not collect from a pay telephone provider for charges billed to a line for calls that originated from that line through the use of access codes such as 10XXX, 10XXXX, 101XXXX, 950, and toll free (e.g., 800, 877, 888) access codes, or when the call originating from that line otherwise reached an operator position, if the originating line is subscribed to outgoing call screening and the call was placed after the effective date of the outgoing call screening order.

(b) A company providing interexchange telecommunications services or local exchange telecommunications services shall not collect from a pay telephone provider for charges for collect or third number billed calls, if the line to which the call was billed was subscribed to incoming call screening and the call was placed after the effective date of the incoming call screening order.

(c) Any calls billed through the provider of local exchange telecommunications services or directly by an interexchange company, or through a billing agent, which have been identified as not collectible as described in paragraphs (20)(a) and (b) above, must be removed from any pay telephone provider's bill after the pay telephone provider gives notice of the fraudulent charges to the billing party. Pay telephone providers shall give such notice to the provider of local exchange telecommunications services and the interexchange company in writing no later than the due date of the bill.

(d) The provider of local exchange telecommunications services is responsible for charges described in paragraph (20)(c) that are associated with the failure of the provider of local exchange telecommunications services' screening services.

(e) The interexchange company is responsible for charges described in paragraph (20)(c) that are associated with the failure to properly validate calls via the appropriate provider of local exchange telecommunications services' data base.

(f) Definitions: For purposes of subsection (20) the term "Effective Date" shall mean the date after the call screening order was placed and associated charges apply.

(g) Any charges accrued to a line when the subscriber has subscribed to the provider of local exchange telecommunications services to screen calls described in paragraphs (20)(a) and (b) above shall not be the basis for discontinuance of local and intrastate service.

(21) Providers serving confinement facilities shall provide for completion of all inmate calls allowed by the confinement facility.

(22) Pay telephone stations located in confinement facilities shall be exempt from the requirements of subsections (2), (4), (6), (7), (8), (10), (12), (13), (15), (16), and (19) of this rule. Such pay telephone stations shall also be exempt from the requirements of subsection (9), except that outgoing local and long distance calls may not be terminated until after a minimum elapsed time of ten minutes. Audible and written disconnect notifications shall apply, and one

access line shall not be connected to more than three pay telephone stations.

(23) Pay telephone facilities shall be designed, constructed, installed, maintained and operated in accordance with provisions of the National Electrical Safety Code (IEEE C2-~~2002~~ 2007) and the National Electrical Code (NEPA 70-2005), which are incorporated by reference.

Specific Authority 350.127(2) FS.

Law Implemented 364.03, 364.035, 364.063, 364.337, 364.3375, 364.345, 364.15 FS.

History–New 1-5-87, Amended 4-14-92, 12-21-92, 2-3-93, 10-10-94, 12-27-94, 9-5-95, 2-1-99, 12-23-02, 4-5-05, 12-29-05.

CODING: Words underlined are additions; words in ~~struck through~~ type are deletions from existing law.

Notice of Proposed Rule

PUBLIC SERVICE COMMISSION

RULE NO: RULE TITLE

25-4.036: Design and Construction of Plant

PURPOSE AND EFFECT: To amend the rule to reference the most recent edition of the National Electrical Safety Code. As Rule 25-4.036 is incorporated by reference into Rules 25-24.585, 25-24.740 and 25-24.835, F.A.C., the proposed amendments, in addition to incumbent local exchange carriers, also affect shared tenant service companies, alternative access vendor service companies and competitive local exchange companies. Docket No. 070303-TP.

SUMMARY: Rule 25-4.036 requires that the plant and facilities of regulated companies be designed, constructed, installed, maintained, and operated in accordance with the provisions of the National Electrical Safety Code. The proposed amendments would update the rule to reflect the 2007 edition of the Code.

SUMMARY OF STATEMENT OF ESTIMATED REGULATORY COSTS: The proposed rule amendment should not significantly impact the agency, the industry, cities, counties, or small businesses.

Any person who wishes to provide information regarding a statement of estimated regulatory costs, or provide a proposal for a lower cost regulatory alternative must do so in writing within 21 days of this notice.

SPECIFIC AUTHORITY: 350.127(2) FS

LAW IMPLEMENTED: 364.01(4), 364.03, 364.15 FS

IF REQUESTED WITHIN 21 DAYS OF THE DATE OF THIS NOTICE, A HEARING WILL BE SCHEDULED AND ANNOUNCED IN FAW.

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Kira Scott, Office of General Counsel, 2540 Shumard Oak Blvd., Tallahassee, FL 32399-0850 (850) 413-6216.

THE FULL TEXT OF THE PROPOSED RULE IS:

25-4.036 Design and Construction of Plant.

(1) The plant and facilities of the utility shall be designed, constructed, installed, maintained and operated in accordance with provisions of the National Electrical Safety Code (IEEE C2-~~2002~~ 2007) and the National Electrical Code (NFPA 70-2005), which is incorporated herein by reference, pertaining to the construction of telecommunications facilities.

(2) Compliance with these codes and accepted good practice is necessary to insure as far as reasonably possible continuity of service, uniformity in the quality of service furnished and the safety of persons and property.

Specific Authority 350.127(2) FS.

Law Implemented 364.01(4), 364.03, 364.15 FS.

History–Revised 12-1-68, Amended 4-19-77, Formerly 25-4.36, Amended 2-5-86, 3-26-91, 5-3-94, 12-23-02, 12-29-05.

NAME OF PERSON ORIGINATING PROPOSED RULE: Paul Vickery

NAME OF SUPERVISOR OR PERSON WHO APPROVED THE PROPOSED RULE: Florida Public Service Commission

DATE PROPOSED RULE APPROVED BY AGENCY HEAD: June 19, 2007

DATE NOTICE OF PROPOSED RULE DEVELOPMENT PUBLISHED IN FAW: Volume 33, Number 11, March 16, 2007

Notice of Proposed Rule

PUBLIC SERVICE COMMISSION

RULE NO: RULE TITLE

25-24.515: Pay Telephone Service

PURPOSE AND EFFECT: To amend the rule to reference the most recent edition of the National Electrical Safety Code. Docket No. 070303-TP.

SUMMARY: Rule 25-24.515 requires that the plant and facilities of regulated companies be designed, constructed, installed, maintained, and operated in accordance with the provisions of the National Electrical Safety Code. The proposed amendments would update the rule to reflect the 2007 edition of the Code.

SUMMARY OF STATEMENT OF ESTIMATED REGULATORY COSTS: The proposed rule amendment should not significantly impact the agency, the industry, cities, counties, or small businesses.

Any person who wishes to provide information regarding a statement of estimated regulatory costs, or provide a proposal for a lower cost regulatory alternative must do so in writing within 21 days of this notice.

SPECIFIC AUTHORITY: 350.127(2), FS

LAW IMPLEMENTED: 364.03, 364.035, 364.063, 364.337, 364.3375, 364.345, 364.15 FS

IF REQUESTED WITHIN 21 DAYS OF THE DATE OF THIS NOTICE, A HEARING WILL BE SCHEDULED AND ANNOUNCED IN FAW.

THE PERSON TO BE CONTACTED REGARDING THE PROPOSED RULE IS: Kira Scott, Office of General Counsel, 2540 Shumard Oak Blvd., Tallahassee, FL 32399-0850, (850) 413-6216.

THE FULL TEXT OF THE PROPOSED RULE IS:

25-24.515 Pay Telephone Service.

(1) – (22) No Change.

(23) Pay telephone facilities shall be designed, constructed, installed, maintained and operated in accordance with provisions of the National Electrical Safety Code (IEEE C2-~~2002~~ 2007) and the National Electrical Code (NEPA 70-2005), which are incorporated by reference.

Specific Authority 350.127(2) FS.

Law Implemented 364.03, 364.035, 364.063, 364.337, 364.3375, 364.345, 364.15 FS.

History–New 1-5-87, Amended 4-14-92, 12-21-92, 2-3-93, 10-10-94, 12-27-94, 9-5-95, 2-1-99, 12-23-02, 4-5-05, 12-29-05.

NAME OF PERSON ORIGINATING PROPOSED RULE: Paul Vickery

NAME OF SUPERVISOR OR PERSON WHO APPROVED THE PROPOSED RULE: Florida Public Service Commission

DATE PROPOSED RULE APPROVED BY AGENCY HEAD: June 19, 2007

DATE NOTICE OF PROPOSED RULE DEVELOPMENT PUBLISHED IN FAW: Volume 33, Number 11, March 16, 2007

STATEMENT OF FACTS AND CIRCUMSTANCES JUSTIFYING RULE

The National Electrical Safety Code provides standards that must be followed by entities that design, install, operate and maintain electrical instrumentation, including the associated wiring that serves to provide power and/or signaling distribution. Moreover, the National Electrical Code provides uniform standards to minimize harm to persons or damage to properties. Rules 25-4.036 and 25-24.515 currently reflect the 2002 version of the National Electrical Safety code. The rules are being amended to reflect the most current version of the National Electrical Safety Code, which is the 2007 edition.

STATEMENT ON FEDERAL STANDARDS

There is no federal standard on the same subject.

State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: June 6, 2007

TO: Office of General Counsel (Scott)

FROM: Division of Economic Regulation (Dickens) BO

RE: Statement of Estimated Regulatory Costs for Proposed Amendments to Rule 25-4.036, Design and Construction of Plant, F.A.C., and Rule 25-24.515 (23), Pay Telephone Service, F.A.C.

DETAILED DESCRIPTION OF THE PROPOSED RULE

The proposed changes to Rules 25-4.036 (23), Florida Administrative Code, Design and Construction of Plant, and 25-24.515, Florida Administrative Code, Pay Telephone Service would require plant and facilities of a telephone company to be designed, constructed, installed, maintained and operated in accordance with the provisions of the updated 2007 Edition of the National Electrical Safety Code (IEEE C2-2007), pertaining to the construction of telecommunications facilities. The rule will require all providers of telecommunication services in Florida to be in full compliance with the updated provisions about safety and security as promulgated in the most recent edition of the National Electrical Safety Code. These revisions update the current rule which requires compliance with the 2002 National Electrical Safety Code.

Compliance with the National Electrical Safety Code by the telecommunications industry would insure, as far as reasonably possible, continuity of service, uniformity in the quality of service furnished and the safety of persons and property.

IMPACT ON THE PSC

There should be no negative impact on the Commission resulting from implementation of the proposed rules.

There is no direct benefit to the Commission resulting from the implementation of the proposed rules. Other state and local government entities should not be negatively impacted.

ENTITIES AFFECTED BY ADOPTION OF PROPOSED RULE

The proposed rule amendments require compliance for all 10 incumbent local exchange companies (ILEC), 373 competitive local exchange companies, 31 shared tenant service companies, 291 pay telephone companies and 35 alternative access vendors operating in Florida.

The proposed rules would benefit telephone company customers by requiring such entities to comply with the new standards that help mitigate against harm to persons or personal property damage. This tangible benefit for Florida ratepayers will foster service reliability and uniformity from their respective providers.

There should be no negative impacts on small businesses, small cities, or small counties.

COST/BENEFIT IMPACTS ON ENTITIES CAUSED BY ADOPTION OF PROPOSED RULE

There should be minimal transactional costs to the telecommunications industry in Florida. The proposed rule amendments seek compliance so that companies are providing the most efficient range of telecommunication services which reflect state-of-the-art engineering standards as promulgated by the National Electrical Safety Code 2007.

Customers should have no transactional costs. They could benefit indirectly by the higher safety provisions embedded in the most recent edition of the National Electrical Safety Code 2007.

The proposed rule amendments apply to all telecommunications companies in Florida, irrespective of size. This finding means that small telecommunications businesses are not exempt from the IEEE-2007 Safety Code requirements. There are no known lower cost alternatives to satisfy the objective of the proposed rule amendments.

There should be no negative impact for small cities, and small county entities resulting from implementation of the rule amendments.

ADDITIONAL COMMENTS REGARDING ADOPTION OF PROPOSED RULE

There are no other pertinent comments regarding the application of the proposed rule.

BD:kb
cc: Mary Andrews Bane
Chuck Hill
Paul Vickery
Hurd Reeves

National Electrical **Safety Code®**

C2-2007

IEEE

3 Park Avenue, New York, NY 10016-5997, USA

Accredited
Standards
Committee
C2-2007

National Electrical Safety Code®

Secretariat
Institute of Electrical and Electronics Engineers, Inc.

Approved 20 April 2006
Institute of Electrical and Electronics Engineers, Inc.

Approved 16 June 2006
American National Standards Institute

2007 Edition

Abstract: This standard covers basic provisions for safeguarding of persons from hazards arising from the installation, operation, or maintenance of (1) conductors and equipment in electric supply stations, and (2) overhead and underground electric supply and communication lines. It also includes work rules for the construction, maintenance, and operation of electric supply and communication lines and equipment. The standard is applicable to the systems and equipment operated by utilities, or similar systems and equipment, of an industrial establishment or complex under the control of qualified persons. This standard consists of the introduction, definitions, grounding rules, list of referenced and bibliographic documents, and Parts 1, 2, 3, and 4 of the 2007 Edition of the National Electrical Safety Code.

Keywords: communications industry safety; construction of communication lines; construction of electric supply lines; electrical safety; electric supply stations; electric utility stations; high-voltage safety; operation of communications systems; operation of electric supply systems; power station equipment; power station safety; public utility safety; safety work rules; underground communication line safety; underground electric line safety

The Institute of Electrical and Electronics Engineers, Inc.
3 Park Avenue, New York, NY 10016-5997, USA

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Recognized as an American National Standard

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. An American National Standard is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an American National Standard does not in any respect preclude anyone, whether he has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard. American National Standards are subject to periodic review and users are cautioned to obtain the latest editions.

Foreword

This foreword is not a part of Accredited Standards Committee C2-2007, National Electrical Safety Code.

This publication consists of the parts of the National Electrical Safety Code® (NESC®) currently in effect. The former practice of designating parts by editions has not been practical for some time. In the 1977 Edition, Parts 1 and 4 were 6th editions; Part 2 was a 7th edition; Part 3 was a revision of the 6th edition; Part 2, Section 29, did not cover the same subject matter as the 5th edition; and Part 3 was withdrawn in 1970. In the 1987 Edition, revisions were made in all parts, and revisions to all parts have been made in subsequent editions. It is therefore recommended that reference to the NESC be made solely by the year of the published volume and desired part number. Separate copies of the individual parts are not available.

Work on the NESC started in 1913 at the National Bureau of Standards (NBS), resulting in the publication of NBS Circular 49. The last complete edition of the Code (the 5th edition, NBS Handbook H30) was issued in 1948, although separate portions had been available at various times starting in 1938. Part 2—Definitions, and the Grounding Rules, 6th edition, was issued as NBS Handbook H81, ANSI C2.2-1960, in November 1961, but work on other parts was not actively in process again until 1970.

In 1970 the C2 Committee decided to delete the Rules for the Installation and Maintenance of Electric Utilization Equipment (Part 3 of the 5th edition), now largely covered by the National Electrical Code® (NEC®)(NFPA 70, 2005 Edition), and the Rules for Radio Installation (Part 5 of the 5th edition) from future editions. The Discussion of the NESC, issued as NBS Handbook H4 (1928 Edition) for the 4th edition of the NESC and as NBS Handbook H39 for Part 2 of the Grounding Rules of the 5th edition, was not published for the 6th edition.

The 1981 Edition included major changes in Parts 1, 2, and 3, minor changes in Part 4, and the incorporation of the rules common to all parts into Section 1. The 1984 Edition was revised to update all references and to list those references in a new Section 3. Converted metric values, for information only, were added. Gender-related terminology was deleted. Section 1—Introduction, Section 2—Definitions, Section 3—References, and Section 9—Grounding Methods, were made applicable to each of the Parts 1, 2, 3, and 4.

The 1987 Edition was revised extensively. Definitions were changed or added. Requirements affecting grounding methods, electric supply stations, overhead line clearances and loading, underground lines, and work rules were revised.

The 1990 Edition included several major changes. General rules were revised. A significant change to the method for specifying overhead line clearances was made and the rationale added as Appendix A. Requirements for clearances of overhead lines from grain bins and an alternate method for determining the strength requirements for wood structures was added. Rules covering grounding methods, electric supply stations, underground lines, and work rules were changed.

In the 1993 Edition, changes were made in the rules applicable to emergency and temporary installations. In Section 9 and Parts 1, 2, and 3, rules were extended or clarified to include HVDC systems. The requirements for random separation of direct-buried supply and communications systems were modified for consistency and clarity, as was the rule in Part 4 on tagging electric supply circuits.

In the 1997 Edition, the most notable general change that took place is that numerical values in the metric (SI) system are shown in the preferred position, with customary inch-foot-pound values (inside parentheses) following. A bibliography, Appendix B, which consists of a list of resources identified in notes or recommendations, was added. Changes were made to rules affecting grounding, electric supply stations, and overhead lines, particularly with regard to clearance rules applicable to emergency and temporary installations. Strength requirements contained in Sections 24, 25, and 26 were revised completely.

Underground line requirements for random separation for underground lines of direct-buried cables were modified. The requirement for cable identification marking by means of sequentially placed logos was introduced. Work rules added a requirement that warning signs and tags comply with applicable ANSI standards, tagging requirements were clarified with regard to SCADA, and extensive requirements for fall protection were added.

In the 2002 Edition, several changes were made that affected all or several parts of the Code. Particularly, this edition clarifies interfaces between the NEC and NESC with regard to Code jurisdiction in the area of street lights and area lights. Also included is clarification for situations between utility workers and their authorized contractors and installations on industrial complexes.

The major revisions for the 2007 Edition include grounding, moving sag calculations to Section 23, moving guy and span wires insulator rules to Section 21, phasing out of the alternate method for load factors and strength factors, flammable materials transported, phase-to-phase cover-up, and minimum approach distance tables.

Subcommittee 1 concerned itself with assuring continuity between subcommittees and supervising the addition of definitions and references. Definitions included work on ducts, conduits, conduit systems raceways, overvoltage/transient conditions, shield wires/static wires, flashover/sparkover, sag, creep, readily climbable/not readily climbable, and others. Inspection and work rules as related to Rule 13 were clarified. The extensive changes made by Working Group 4.10 on overhead clearances was reviewed and accepted for inclusion in Section 23 as well as in a new Appendix B to the Code. A similar review of the work by Subcommittee 5 led to creation of new Appendix C to cover application of extreme wind loading covered in Rule 250C.

Section 9—Based on extensive studies, steel poles are now permitted as grounding electrodes, and Rule 97G mandates common bonding between communication and power grounding electrodes, with additional information on common bonding given in Rule 99. Metallic water piping systems are no longer a preferred grounding electrode. Changes to Rule 96 clarify ground resistance requirements, and changes to Rule 94B clarify dimensional requirements for ground rods.

Part 1—Selected column headings have been revised for clarity, and inconsistencies in Tables 124-1 and 125-1 corrected.

Part 2—Overhead clearances. A new approach for calculating clearances is detailed in new Section 23 and Appendix B. Rules related to sag calculation for conductor sags as related to clearances were moved from Sections 25 and 26 (loading and strength) into sections covering clearances. All calculations in which both loaded and unloaded conductors involving ice and wind when used for strength calculations remain in Sections 25 and 26. Rule 215C2 was revised to require all guys regardless of exposure to be insulated or grounded. Rules related to guy and span wire insulators moved from Rule 279 to Rule 215C2 to improve subject matter retrieval from the Code. The vertical clearance of a service drop attached to a mast, porch, deck, or balcony has been increased from 2.45 to 3 m (8 to 10 ft). Rule 235G has been changed to allow multiplex line cable up to 750 V to attach to the same support bracket as neutral conductors meeting Rule 230E1.

Part 2—Strength and loading. No modifications were made to Rule 250C to remove the exemption that excludes structures of less than 18 m (60 ft) height from having to meet the extreme wind requirements. The efficacy of doing so will be considered again for the 2012 Edition. Insulator strength ratings and conductor tensions are scheduled for study with possible changes to the 2012 Edition. Specific load factors in Tables 253-1 and 253-2 have been reduced. Tables 253-2 and 261-1B covering alternate load factors and strength factors, respectively, will be phased out in July 2010. They will be replaced by Tables 253-1 and 261-1A that are applicable to all materials. Load and strength factors have been specified for fiber reinforced plastic (FRP) materials, and strength factors for FRP structures, crossarms, and braces have been added. Rules 250A, 253, and 261N have been made more specific in dealing with construction maintenance loads.

Rule 261A2e, which permitted poles of reduced strength to remain in service under the specific condition of being supported by stronger poles on each side of the pole, has been removed. In the long-term view, pole design is tending to move in the direction of Probabilistic Design (LRFD) away from Deterministic Design, a trend which is in concert with a majority of other industries.

Part 3—Rule 311C was added to permit supply and communication cables to be laid directly on grade, providing they do not obstruct traffic or pedestrians and meet other applicable rules. Rule 351C1 was clarified to better describe the limitations of where aboveground pools may be located relative to supply cable, and also state the rule that applies to aboveground pools. It is now recognized that all flammable material transported in pipelines is under some conditions considered hazardous because of location. The Code now requires the same radial separation of 300 mm (12 in) for supply and communication cables from all lines that transport flammable material, not only fuel lines. The rule now defines a flammable liquid.

Part 4—Work revolved largely around expanding guidelines for use of fire resistant (FR) clothing and other safety equipment such as voltage protection devices. These guidelines include arc hazard analysis and reference tables. A new rule was introduced to address high-frequency radiation effects on workers in both the supply and communications spaces arising from communication antennas mounted in those spaces. A new rule requiring phase-to-phase cover-up when guarding against phase-to-phase contact was added. Changes were made to existing minimum approach distance tables. These distances agree with those published in IEEE Std IEEE 516™.①

Substantive changes in the 2007 Edition are identified by a bar in the left-hand margin. In several cases, rules have been relocated without substantive changes in the wording. In these cases, only the rule numbers have been indicated as having been changed.

The Institute of Electrical and Electronics Engineers, Inc., was designated as the administrative secretariat for C2 in January 1973, assuming the functions formerly performed by the National Bureau of Standards.

Comments on the rules and suggestions for their improvement are invited, especially from those who have experience in their practical application. In future editions every effort will be made to improve the rules, both in the adequacy of coverage and in the clarification of requirements. Comments should be addressed to:

Secretary
National Electrical Safety Code Committee
Institute of Electrical and Electronics Engineers, Inc.
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331

A representative Interpretations Subcommittee has been established to prepare replies to requests for interpretation of the rules contained in the Code. Requests for interpretation should state the rule in question, as well as the conditions under which it is being applied. Interpretations are intended to clarify the intent of specific rules and are not intended to supply consulting information on the application of the Code. Requests for interpretation should be sent to the address above.

If the request is suitable for processing, it will be sent to the Interpretations Subcommittee. After consideration by the committee, which may involve many exchanges of correspondence, the inquirer will be notified of its decision. Decisions are published regularly and may be ordered or accessed online at no cost at http://standards.ieee.org/nsec.

The NESC as written is a voluntary standard. However, some editions and some parts of the Code have been adopted, with and without changes, by some state and local jurisdictional authorities. To determine the legal

①Information on references can be found in Section 3.

status of the NESC in any particular state or locality within a state, the authority having jurisdiction should be contacted.

The revision cycle for the 2012 Edition of the NESC will be fully electronic. Change proposals and comments will be submitted to the NESC Secretary online via the Internet. For information on how this electronic revision process will take place and for updates and complete information on the NESC, please visit the National Electrical Safety Code Zone on the IEEE Standards Web site at http://standards.ieee.org/nesc.

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At the time this Code was approved, Accredited Standards Committee C2 had the following membership:

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(Sections 10–19)

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AAR—Association of American Railroads
AEIC—Association of Edison Illuminating Companies
AISG—American Insurance Services Group, Inc.
AISI—American Iron and Steel Institute
APPA—American Public Power Association
APTA—American Public Transit Association
ATIS—Alliance for Telephone Industry Solutions
AWPA—American Wood Preserves Assocation
BPA—Bonneville Power Admin., US Dept. of Energy
EEI—Edison Electric Institute
EIA—Electronic Industries Association
IAGLO—Int'l. Assoc. of Government Labor Officials
IBEW—International Brotherhood of Electrical Workers
IEEE—Institute of Electrical and Electronics Engineers, Inc.
IMSA—International Municipal Signal Association
NARUC—National Association of Regulatory Utility Commissioners
NCTA—National Cable Television Association
NECA—National Electrical Contractors Association
NEMA—National Electrical Manufacturers Association
NSC—National Safety Council
NSPE—National Society of Professional Engineers
RUS—Rural Utilities Services, US Dept. of Agriculture
SEEX—Southeastern Electric Exchange
TVA—Tennessee Valley Authority
WAPA—Western Area Power Administration, US Dept. of Energy

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Overhead Lines—Clearances
(Section 20, 21, 22, and 23)

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(Sections 30–39)

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Subcommittee 8
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(Sections 40–44)

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A = All areas, P1 = Part 1, P2 = Part 2, P3 = Part 3, P4 = Part 4, S9 = Section 9

Contents

Section 1.
Introduction to the
National Electrical Safety Code®

010. Purpose

The purpose of these rules is the practical safeguarding of persons during the installation, operation, or maintenance of electric supply and communication lines and associated equipment.

These rules contain the basic provisions that are considered necessary for the safety of employees and the public under the specified conditions. This Code is not intended as a design specification or as an instruction manual.

011. Scope

A. These rules cover supply and communication lines, equipment, and associated work practices employed by a public or private electric supply, communications, railway, or similar utility in the exercise of its function as a utility. They cover similar systems under the control of qualified persons, such as those associated with an industrial complex or utility interactive system.

B. The NESC covers utility facilities and functions up to the service point.

NOTE: The National Electrical Code® (NEC®) (NFPA 70, 2005 Edition)[1] covers utilization wiring requirements beyond the service point.

C. NESC rules cover street and area lights (supplied by underground or overhead conductors) under the exclusive control of utilities (including their authorized contractors) or other qualified persons (such as those associated with an industrial complex).

NOTE: Luminaires not under such exclusive control are governed by the requirements of the NEC.

D. NESC rules do not cover installations in mines, ships, railway rolling equipment, aircraft, or automotive equipment, or utilization wiring except as covered in Parts 1 and 3.

012. General rules

A. All electric supply and communication lines and equipment shall be designed, constructed, operated, and maintained to meet the requirements of these rules.

B. The utilities, authorized contractors, or other entities, as applicable, performing design, construction, operation, or maintenance tasks for electric supply or communication lines or equipment covered by this Code shall be responsible for meeting applicable requirements.

C. For all particulars not specified in these rules, construction and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the construction or maintenance of the communication or supply lines and equipment.

013. Application

A. New installations and extensions

1. These rules shall apply to all new installations and extensions, except that they may be waived or modified by the administrative authority. When so waived or modified, safety shall be provided in other ways.

[1]Information on references can be found in Section 3.

Section 2.
Definitions of special terms

The following definitions are for use with the National Electrical Safety Code. For other use, and for definitions not contained herein, see *The Authoritative Dictionary of IEEE Standards Terms*.

administrative authority. The governmental authority exercising jurisdiction over application of this Code.

ampacity. The current-carrying capacity, expressed in amperes, of an electric conductor under stated thermal conditions.

anchorage. A secure point of attachment to which the fall protection system is connected.

automatic. Self-acting, operating by its own mechanism when actuated by some impersonal influence—as, for example, a change in current strength; not manual; without personal intervention. Remote control that requires personal intervention is not automatic, but manual.

backfill (noun). Materials such as sand, crushed stone, or soil, that are placed to fill an excavation.

ballast section (railroads). The section of material, generally trap rock, that provides support under railroad tracks.

bonding. The electrical interconnecting of conductive parts, designed to maintain a common electrical potential.

cable. A conductor with insulation, or a stranded conductor with or without insulation and other coverings (single-conductor cable), or a combination of conductors insulated from one another (multiple-conductor cable).

cable jacket. A protective covering over the insulation, core, or sheath of a cable.

cable sheath. A conductive protective covering applied to cables.

NOTE: A cable sheath may consist of multiple layers, of which one or more is conductive.

cable terminal. A device that provides insulated egress for the conductors. *Syn:* **termination**.

circuit. A conductor or system of conductors through which an electric current is intended to flow.

circuit breaker. A switching device capable of making, carrying, and breaking currents under normal circuit conditions and also making, carrying for a specified time, and breaking currents under specified abnormal conditions such as those of short circuit.

clearance. The clear distance between two objects measured surface to surface.

climbing. The vertical movement (ascending and descending) and horizontal movement to access or depart the worksite.

common use. Simultaneous use by two or more utilities of the same kind.

communication lines. *See:* **lines.**